PTO/SB/05 (08-03)

Approved for use through 07/31/2006. OMB 0651-0032

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UTILITY PATENT APPLICATION **TRANSMITTAL**

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UTILITY	Attorney Docket No.	LAR-16539-1	
PATENT APPLICATION	First Inventor		. 4
TRANSMITTAL	Title	See 1 in Addendum	S S S S S
(Only for new nonprovisional applications under 37 CFR 1.53(b))	Express Mail Label No.	ER 120788369 US	Sola

(Only for new nonprovisional applications under 37 CFR 1.53(b))	Express Mail Label No. ER 120788369 US			
APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	ADDRESS TO: Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450			
1. X Fee Transmittal Form (e.g., PTO/SB/17) (Submit an original and a duplicate for fee processing) Applicant claims small entity status. See 37 CFR 1.27. 3. X Specification [Total Pages 14] (preferred arrangement set forth below) - Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure 4. X Drawing(s) (35 U.S.C. 113) [Total Sheets 4] 5. Oath or Declaration [Total Sheets 2] a. X Newly executed (original or copy) b. Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed) i. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). 6. X Application Data Sheet. See 37 CFR 1.76	7. CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix) 8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) a. Computer Readable Form (CRF) b. Specification Sequence Listing on: i. CD-ROM or CD-R (2 copies); or ii. Paper c. Statements verifying identity of above copies ACCOMPANYING APPLICATION PARTS 9. X Assignment Papers (cover sheet & document(s)) 10. 37 CFR 3.73(b) Statement Power of (when there is an assignee) Attorney 11. English Translation Document (if applicable) 12. Information Disclosure Copies of IDS Statement (IDS)/PTO-1499 Citations 13. Preliminary Amendment 14. X Return Receipt Postcard (MPEP 503) (Should be specifically itemized) 15. Certified Copy of Priority Document(s) (if foreign priority is claimed) 16. Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. Other: POA is included in the Declaration			
18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional Continuation-in-part (CIP) Of prior application No.: Art Unit:				
For CONTINUATION OF DIVISIONAL APPS only; The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.				
19. CORRESPON	IDENCE ADDRESS			
X Customer Number: 23351	OR Correspondence address below			
Name				
Address				
City	State Zip Code			
	elephone Fax			
Name (Print/Type) Barry V. Gibbens	Registration No. (Attorney/Agent) 44,707			
Signature	Doto 0 1 1 2000			

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/17 (10-03)
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CEE TOANGMITTA					Complete if Known	
FEE TRANSMITTA	┗┃	Appli	cation	Numb	er ·	
for EV 2004		Filing	Date		October 14, 2003	
for FY 2004 Effective 10/01/2003. Patent fees are subject to annual revision.		First	Name	d Inver	ntor David L. Raney	
		Exam	niner N	lame		
Applicant claims small entity status. See 37 CFR 1.27		Art U	nit			
TOTAL AMOUNT OF PAYMENT (\$) 918.00	_			cket N	lo. LAR 16539-1	
METHOD OF PAYMENT (check all that apply) FEE CALCULATION (continued)						
Check Credit card Money Other None 3. ADDITIONAL FEES						
V Deposit Assourt:	L <u>arge</u>	Entity	Smal	I Entity		ľ
X Deposit Account:		Fee (\$)	Fee Code	Fee (\$)	Fee Description	ee Paid
Account Number	1051	130	2051	65	Surcharge - late filing fee or oath	
Deposit Account National Aeronautics and Space Administration	1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
Name The Director is authorized to: (check all that apply)	1053	130	1053	130	Non-English specification	
X Charge fee(s) indicated below X Credit any overpayments	1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
\overline{X} Charge any additional fee(s) or any underpayment of fee(s)	1804	920	1804	920*	Requesting publication of SIR prior to Examiner action	
Charge fee(s) indicated below, except for the filing fee	1805	1,840*	1805	1,840*	Requesting publication of SIR after	
to the above-identified deposit account.	4054	440	0054		Examiner action	
FEE CALCULATION	1251	110	2251		Extension for reply within first month	
1. BASIC FILING FEE	1252 1253	420 950	2252		Extension for reply within second month Extension for reply within third month	
Large Entity Small Entity Fee Fee Fee Fee Description Fee Paid		1,480	2253		Extension for reply within fourth month	
Code (\$) Code (\$)		•	2254		Extension for reply within fifth month	
1001 770 2001 385 Utility filing fee 770.00		2,010	2255			
1002 340 2002 170 Design filing fee	1401	330	2401		Notice of Appeal	
1003 530 2003 265 Plant filing fee	1402	330	2402		Filing brief in support of an appeal	
1004 770 2004 385 Reissue filing fee	1403	290	2403		Request for oral hearing	
1005 160 2005 80 Provisional filing fee	1451	1,510	1451 2452		Petition to institute a public use proceeding	
SUBTOTAL (1) (\$) 770.00		110			Petition to revive - unavoidable	
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE		1,330	2453		Petition to revive - unintentional	
Fee from Extra Claims below Fee Paid	1501	1,330 480	2501 2502		Utility issue fee (or reissue) Design issue fee	
Total Claims 26 -20** = 6 x 18 = 108	1502	640	2502		Plant issue fee	
Independent Claims 2 - 3** = 0 x = 0	1460	130	1460		Petitions to the Commissioner	
Multiple Dependent	1807	50	1807		Processing fee under 37 CFR 1.17(q)	
Large Entity Small Entity	1806	180	1806		Submission of Information Disclosure Stmt	
Fee Fee Fee Fee Description Code (\$)	8021	40	8021		Recording each patent assignment per	40.00
1202 18 2202 9 Claims in excess of 20	1809	770	2809		property (times number of properties) Filing a submission after final rejection	40.00
1201 86 2201 43 Independent claims in excess of 3	1009	,,,	2009		(37 CFR 1.129(a))	
1203 290 2203 145 Multiple dependent claim, if not paid	1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	

SUBMITTED BY			(Complete	'if applicable)
Name (Print/Type)	Barry V. Gibbens	D !- 4 1! 1! -		757-864-7141
Signature	Bour Tobben		Date	October 14, 2003

Other fee (specify)

1801

1802

108.00

770 2801

900 1802

*Reduced by Basic Filing Fee Paid

385 Request for Continued Examination (RCE)

SUBTOTAL (3) (\$)

40.00

900 Request for expedited examination

of a design application

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** Reissue independent claims

and over original patent

** Reissue claims in excess of 20

(\$)

over original patent

SUBTOTAL (2)

**or number previously paid, if greater; For Reissues, see above

1204

1205

86

18

2205

Addendum

1.	Resonant Wingbeat Tuning Circuit Using Strain-Rate Feedback For Ornithoptic Micro
	Aerial Vehicles

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

David L. Raney

Filed: October 14, 2003 (herewith)

For: Resonant Wingbeat Tuning Circuit Using Strain-Rate Feedback For Ornithoptic Micro Aerial

Vehicles

Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

EXPRESS MAIL CERTIFICATE

"Express Mail" label number EU 120788369 US Date of Deposit: October 14, 2003

> I hereby state that the following attached papers: Application Data Sheet - 3 pages Utility Patent Application Transmittal - 2 pages Fee Transmittal - 1 page (2 copies) Non-provisional patent application - 14 pages Drawings - 4 sheets (informal) Declaration, Power of Attorney and Petition - 2 pages Assignment Cover Sheet - 3 pages (2 copies) Assignment to the Government by Government Employee - 1 page Return Postal Card

are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10, on the date indicated above and is addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Have C. McMahon